



# Thoughts on legal responses to the call to classify plastic waste as hazardous

Aleke Stöfen  
University of Trier

Rochman, Browne *et al.* Comment in Nature  
Vol.494 (169-171), 14 February 2013

### 3 central elements

- ❖ Causation?: Plastics or chemicals?
- ❖ Aspects of risk management
- ❖ The role of the precautionary principle

**COMMENT**

**ENVIRONMENT** Olympic velodrome engineer builds with nature **p.172** | **ENVIRONMENT** Materials makers on how to do more with less **p.174** | **THEY** New York play explores why Isaac Newton stack a needle in his eye **p.175** | **NETS** Some altmetrics are too easy to game so lack credibility **p.176**



Volunteer cleaners negotiate a Bulgarian reservoir jammed with plastics.

## Classify plastic waste as hazardous

Policies for managing plastic debris are outdated and threaten the health of people and wildlife, say **Chelsea M. Rochman, Mark Anthony Browne** and colleagues.

Last year, 280 million tonnes of plastic was produced globally. Less than half of it was consigned to landfill or recycled. Of the remaining 150 million tonnes, some may still be in use; the rest litters continents and oceans (see 'Plastic world').

Plastic debris can physically harm wildlife<sup>1,2</sup>. Moreover, many plastics may be chemically harmful in some contexts — either because they are themselves potentially toxic<sup>3</sup> or because they absorb other pollutants<sup>4</sup>. Yet in the United States, Europe, Australia and Japan, plastics are classified as solid waste — so are treated in the same way as food scraps or grass clippings.

We believe that if countries classified the most harmful plastics as hazardous, their environmental agencies would have the power to restore affected habitats and prevent more dangerous debris from accumulating. Ultimately, such a move could boost research on new polymers and replace the most problematic materials with safer ones. It is now almost impossible to walk in the countryside or on a beach without encountering bits of plastic. Larger pieces, from bottles and bags to floating pontoons, can transport species to new habitats where they might do damage. Such debris can kill or injure ecologically and commercially important species, including muskies, salt-marsh grasses and corals<sup>5,2</sup>. Mammals, reptiles and birds can also be harmed through eating plastic or becoming entangled in it. Last year, the secretariat of the Convention on Biological Diversity in Montreal, Canada, reported ▶

14 FEBRUARY 2013 | VOL 494 | NATURE | 169  
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# Ban or phase-out landfilling of plastic

- ❖ Landfill-Directive (1999/31/EC) does provide opportunity for banning or phasing-out the landfilling of certain substances (Art.5 Landfill Directive)
  - >Phasing-out: landfilling of biodegradable waste
  - >Ban: landfilling of medical waste

## Amendment of the Landfill-Directive

- ❖ 2014 Year of opportunity?: Review of the Landfill Directive!  
However: integration in the overall EU Waste Framework is necessary (recycling targets of the Waste Framework Directive)
- ❖ Translate science into law



Source: wisegeeks.com



Source: Norman D. Arden



Source: demotix.com

# Thank you for your attention!

## THE MOST DANGEROUS SPECIES IN THE MEDITERRANEAN



All around the world, 8 million tonnes of waste reach the sea every day. All this refuse is generated by human activity. This non-recyclable rubbish is thrown into the toilet, onto the streets, into gutters, onto the sand and into the sea, turning it into a tangible destroyer of marine life. But you can stop this from happening.

**Uncontrolled waste is a threat to the seas.**



Aleke Stöfen  
Research Associate and PhD Candidate in Law

[stoefen@uni-trier.de](mailto:stoefen@uni-trier.de)

DFG Graduate School on Cooperation of  
Environmental Law and Natural Science  
University of Trier, Germany

*PhD Topic: The regulation of marine litter in  
public international and European law*